

## CURRENT CLAIMS

None of the claims in this application are amended herein. The current claims are reproduced below for the Examiner's convenience.

1           1. (Previously Presented) A computer-implemented method for combining at  
2   least two overlapping layers to render an image, the image containing a plurality of  
3   image pixels, each overlapping layer containing a plurality of layer pixels, each layer  
4   pixel corresponding to one of the image pixels, wherein each layer pixel has an opac-  
5   ity value and wherein at least one of the overlapping layers has a fade value that  
6   specifies an overall opacity of the at least one of the overlapping layers, the method  
7   comprising:

8           a')    defining a tile, the tile comprising a subset of the image pixels  
9                   delimited according to an area of overlap among a set of at least  
10                  two layers, so that a first portion of the image lies within the tile  
11                  and a second portion of the image lies outside the tile; and

12          a)    processing the first portion of the image distinctly from the sec-  
13                  ond portion of the image by, for at least one image pixel in the  
14                  defined tile:

15                  a.1)   initializing an accumulator color value and an accumula-  
16                          tor opacity value;

- 17 a.2) selecting one of the layers in the set of at least two layers,  
18 the selected layer having a layer pixel corresponding to  
19 the image pixel, the layer pixel having a color value;  
20 a.3) compositing the color value of the layer pixel with the ac-  
21 cumulator color value, and compositing at least one of the  
22 opacity value of the layer pixel and the fade value of the  
23 selected layer with the accumulator opacity value;  
24 a.4) storing the accumulator color value and the accumulator  
25 opacity value resulting from a.3);  
26 a.5) determining whether layer pixels for any remaining lay-  
27 ers in the set of at least two layers should be processed;  
28 a.6) responsive to a.5) indicating that layer pixels for any re-  
29 maining layers should be processed, repeating a.2) to a.6);  
30 and  
31 a.7) outputting the accumulator color value;

32 wherein, for each defined tile, the set of layers that overlap within the  
33 tile is homogenous throughout the entirety of the tile.

1 2. (Previously Presented) The method of claim 1, wherein a.5) comprises de-  
2 termining whether the accumulator opacity value indicates full opacity.

1 3. (Original) The method of claim 1, wherein a.2) comprises selecting a top-  
2 most remaining layer in the set of at least two layers.

1           4. (Previously Presented) The method of claim 1, wherein a.7) comprises out-  
2     putting the accumulator color value to a frame buffer.

1           5. (Original) The method of claim 1, further comprising:

2                 b)     displaying the image.

1           6. (Original) The method of claim 1, further comprising:

2                 b)     repeating a) for each image pixel in the defined tile.

1           7. (Original) The method of claim 1, wherein a) comprises performing a.1)  
2     through a.7) for at least two image pixels concurrently.

1           8. (Previously Presented) The method of claim 1, further comprising:

2                 b)     concurrently with a), for a second image pixel in the defined tile:

3                     b.1)   initializing a second accumulator color value;

4                     b.2)   selecting one of the layers in the set of at least two layers, the se-  
5                             lected layer having a second layer pixel corresponding to the  
6                             second image pixel, the second layer pixel having a color value;

7                     b.3)   compositing the color value of the second layer pixel with the  
8                             second accumulator color value;

9                     b.4)   storing the second accumulator color value resulting from b.3);

10                    b.5)   determining whether layer pixels for any remaining layers in the  
11                             set of at least two layers should be processed;

12                   b.6)   responsive to b.5) indicating that layer pixels for any remaining  
13                   layers should be processed, repeating b.2) to b.6); and  
14                   b.7)   outputting the second accumulator color value.

1           9. (Original) The method of claim 1, wherein at least one of the layers in the  
2 set of at least two layers is non-rectangular.

1           10. (Previously Presented) The method of claim 1, wherein at least one pixel  
2 of at least one of the layers in the set of at least two layers is transparent, and wherein  
3 compositing the color value of the layer pixel with the accumulator color value in a.3)  
4 comprises:

5                   a.3.1) responsive to the layer pixel being transparent, retaining the ac-  
6                   cumulator color value; and

7                   a.3.2) responsive to the layer pixel not being transparent, compositing  
8                   the color value of the layer pixel with the accumulator color  
9                   value.

1           11. (Original) The method of claim 1, further comprising:

2                   b') repeating a') and a) for at least one second defined tile.

1           12. (Original) The method of claim 1, wherein each layer comprises a win-  
2 dow, and wherein the image comprises a display for a windowing system.

1           13. (Original) The method of claim 1, wherein a first one of the layers in the  
2 set overlaps a second one of the layers in the set, and wherein each layer comprises

3 bounds defined by edges, and wherein at least one edge of the first layer lies within  
4 the bounds of the second layer, and wherein a') comprises:

5 subdividing the second layer along a line corresponding to an exten-  
6 sion of the at least one edge of the first layer that lies within the  
7 bounds of the second layer.

1 14. (Previously Presented) The method of claim 1, wherein a.3) comprises  
2 compositing the color value of the layer pixel with the accumulator color value using  
3 at least one of the opacity value of the layer pixel, the fade value of the selected layer  
4 and the accumulator opacity value.

1 15. (Previously Presented) A system for combining at least two overlapping  
2 layers to render an image, the image containing a plurality of image pixels, each  
3 overlapping layer containing a plurality of layer pixels, each layer pixel correspond-  
4 ing to one of the image pixels, wherein each layer pixel has an opacity value and  
5 wherein at least one of the overlapping layers has a fade value that specifies an over-  
6 all opacity of the at least one of the overlapping layers, the system comprising:

7 a tile subdivider, for defining a tile, the tile comprising a subset of the  
8 image pixels delimited according to an area of overlap among a  
9 set of at least two layers, so that a first portion of the image lies  
10 within the tile and a second portion of the image lies outside the  
11 tile;

one or more accumulators, for initializing an accumulator color value  
and an accumulator opacity value for at least one image pixel in  
the defined tile;

a layer selector, coupled to the tile subdivider, for successively selecting  
each of at least a subset of the layers in the set of at least two layers,  
each selected layer having a layer pixel corresponding to the  
image pixel, the layer pixel having a color value;

a compositor coupled to the layer selector and to the one or more accumulators,  
for, for each successively selected layer, compositing  
the color value of the layer pixel with the accumulator color  
value, and compositing at least one of the opacity value of the  
layer pixel and the fade value of the selected layer with the accumulator  
opacity value, and storing the results in the one or  
more accumulators; and

an output device, coupled to the one or more accumulators, for outputting  
the accumulator color value;

wherein in combining the overlapping layers, the one or more accumulators,  
the layer selector, and the compositor process the first  
portion of the image distinctly from the second portion of the  
image;

wherein, for each defined tile, the set of layers that overlap within the  
tile is homogenous throughout the entirety of the tile.

1           16. (Previously Presented) The system of claim 15, wherein the subset of  
2 overlapping layers selected by the layer selector is determined responsive to a com-  
3 parison of the accumulator opacity value with a full opacity value.

1           17. (Original) The system of claim 15, wherein the layer selector successively  
2 selects layers by selecting a topmost remaining layer in the set of at least two layers.

1           18. (Previously Presented) The system of claim 15, wherein the output device  
2 outputs the accumulator color value to a frame buffer.

1           19. (Original) The system of claim 15, further comprising a display device,  
2 coupled to the output device, for displaying the image.

1           20. (Previously Presented) The system of claim 15, wherein each of the layer  
2 selector, compositor, one or more accumulators, and output device operates on each  
3 image pixel in the defined tile.

1           21. (Previously Presented) The system of claim 15, wherein the layer selector,  
2 compositor, one or more accumulators, and output device each operate on at least  
3 two image pixels concurrently.

1           22. (Previously Presented) The system of claim 15, wherein:

2                   one of the one or more accumulators initializes a second accumulator

3                   color value for a second image pixel in the defined tile;

4 the layer selector, concurrently with successively selecting each of at  
5 least a subset of the layers in the set of at least two layers having  
6 a layer pixel corresponding to the first image pixel, selects one of  
7 the layers in the set of at least two layers having a second layer  
8 pixel corresponding to the second image pixel, the second layer  
9 pixel having a color value;  
10 the compositor, concurrently with compositing the first color value of  
11 the layer pixel with the accumulator color value, composites the  
12 color value of the second layer pixel with the second ac-  
13 cumulator color value and stores the result in the one of the one  
14 or more accumulators; and  
15 the output device outputs the second accumulator color value.

1 23. (Original) The system of claim 15, wherein at least one of the layers in the  
2 set of at least two layers is non-rectangular.

1 24. (Original) The system of claim 15, wherein at least one pixel of at least one  
2 of the layers in the set of at least two layers is transparent, and wherein the composi-  
3 tor:

4 responsive to the layer pixel being transparent, retains the accumulator  
5 color value; and

6 responsive to the layer pixel not being transparent, composites the color  
7 value of the layer pixel with the accumulator color value.



1           25. (Previously Presented) The system of claim 15, wherein:

2                   the tile subdivider defines as a second tile a second area of overlap be-  
3                   tween a second set of at least two layers, the tile comprising a  
4                   second subset of the image pixels;

5                   one of the one or more accumulators initializes a second accumulator  
6                   color value for at least one image pixel in the second defined tile;  
7                   the layer selector successively selects each of at least a subset of the lay-  
8                   ers in the second set of at least two layers, each selected layer  
9                   having a layer pixel corresponding to the image pixel, the layer  
10                  pixel having a color value;

11                  the compositor, for each successively selected layer, composites the  
12                  color value of the layer pixel with the second accumulator color  
13                  value and stores the result in one of the one or more accumula-  
14                  tors; and

15                  the output device outputs the second accumulator color value.

1           26. (Original) The system of claim 15, wherein each layer comprises a win-  
2           dow, and wherein the image comprises a display for a windowing system.

1           27. (Original) The system of claim 15, wherein a first one of the layers in the  
2           set overlaps a second one of the layers in the set, and wherein each layer comprises  
3           bounds defined by edges, and wherein at least one edge of the first layer lies within  
4           the bounds of the second layer, and wherein the tile subdivider subdivides the sec-

ond layer along a line corresponding to an extension of the at least one edge of the first layer that lies within the bounds of the second layer.

28. (Previously Presented) The system of claim 15, wherein the compositor composites the color value of the layer pixel with the accumulator color value using at least one of the opacity value of the layer pixel, the fade value of the selected layer and the accumulator opacity value.

29. (Previously Presented) A computer program product comprising a computer-usable medium having computer-readable code embodied therein for combining at least two overlapping layers to render an image, the image containing a plurality of image pixels, each overlapping layer containing a plurality of layer pixels, each layer pixel corresponding to one of the image pixels, wherein each layer pixel has an opacity value and wherein at least one of the overlapping layers has a fade value that specifies an overall opacity of the at least one of the overlapping layers, the computer program product comprising:

computer-readable program code devices configured to cause a computer to define a tile, the tile comprising a subset of the image pixels delimited according to an area of overlap among a set of at least two layers, so that a first portion of the image lies within the tile and a second portion of the image lies outside the tile;  
and

computer-readable program code devices configured to cause a computer to process the first portion of the image distinctly from the

17 second portion of the image by, for at least one image pixel in  
18 the defined tile:  
19 initializing an accumulator color value and an accumulator  
20 opacity value;  
21 selecting one of the layers in the set of at least two layers, the se-  
22 lected layer having a layer pixel corresponding to the im-  
23 age pixel, the layer pixel having a color value;  
24 compositing the color value of the layer pixel with the accu-  
25 mulator color value, and compositing at least one of the  
26 opacity value of the layer pixel and the fade value of the  
27 selected layer with the accumulator opacity value;  
28 storing the accumulator color value and the accumulator opacity  
29 value resulting from the compositing;  
30 determining whether layer pixels for any remaining layers in the  
31 set of at least two layers should be processed;  
32 responsive to the determination indicating that layer pixels for  
33 any remaining layers should be processed, repeating the  
34 initializing, selecting, compositing, storing, and determin-  
35 ing steps; and  
36 outputting the accumulator color value;  
37 wherein, for each defined tile, the set of layers that overlap within the  
38 tile is homogenous throughout the entirety of the tile.

1           30. (Previously Presented) The computer program product of claim 29,  
2   wherein the computer-readable program code devices configured to cause a com-  
3   puter to determine whether layer pixels for any remaining layers should be proc-  
4   essed comprise computer-readable program code devices configured to cause a com-  
5   puter to determine whether the accumulator opacity value indicates full opacity.

1           31. (Original) The computer program product of claim 29, wherein the com-  
2   puter-readable program code devices configured to cause a computer to select one of  
3   the layers comprise computer-readable program code devices configured to cause a  
4   computer to select a topmost remaining layer in the set of at least two layers.

1           32. (Previously Presented) The computer program product of claim 29,  
2   wherein the computer-readable program code devices configured to cause a com-  
3   puter to output the accumulator color value comprise computer-readable program  
4   code devices configured to cause a computer to output the accumulator color value  
5   to a frame buffer.

1           33. (Original) The computer program product of claim 29, further compris-  
2   ing:  
3               computer-readable program code devices configured to cause a com-  
4               puter to display the image.

1           34. (Original) The computer program product of claim 29, further compris-  
2   ing:

3 computer-readable program code devices configured to cause a com-  
4 puter to repeat the initializing, selecting, compositing, storing,  
5 determining, and outputting for each image pixel in the defined  
6 tile.

1 35. (Original) The computer program product of claim 29, wherein the com-  
2 puter-readable program code devices are configured to cause a computer to perform  
3 the initializing, selecting, compositing, storing, and outputting for at least two image  
4 pixels concurrently.

1 36. (Previously Presented) The computer program product of claim 29, fur-  
2 ther comprising:

3 computer-readable program code devices configured to cause a com-  
4 puter to, for a second image pixel in the defined tile and concur-  
5 rently with the selecting, compositing, storing, and outputting  
6 for the first image pixel:

7 initialize a second accumulator color value;

8 select one of the layers in the set of at least two layers, the se-

9 lected layer having a second layer pixel corresponding to

10 the second image pixel, the second layer pixel having a

11 color value;

12 composite the color value of the second layer pixel with the sec-

13 ond accumulator color value;

14                   store the second accumulator color value resulting from the  
15                   compositing;  
16                   determine whether layer pixels for any remaining layers in the  
17                   set of at least two layers should be processed;  
18                   responsive to the determination indicating that layer pixels for  
19                   any remaining layers should be processed, repeat the ini-  
20                   tializing, selecting, compositing, storing, and determining  
21                   steps; and  
22                   output the second accumulator color value.

1           37. (Original) The computer program product of claim 29, wherein at least  
2           one of the layers in the set of at least two layers is non-rectangular.

1           38. (Original) The computer program product of claim 29, wherein at least  
2           one pixel of at least one of the layers in the set of at least two layers is transparent,  
3           and wherein the computer-readable program code devices configured to cause a  
4           computer to composite the color value of the layer pixel with the accumulator color  
5           value comprise computer-readable program code devices configured to cause a com-  
6           puter to:

7                   responsive to the layer pixel being transparent, retain the accumulator  
8                   color value; and

9                   responsive to the layer pixel not being transparent, composite the color  
10                  value of the layer pixel with the accumulator color value.

1           39. (Original) The computer program product of claim 29, further com-  
2   prising:

3           computer-readable program code devices configured to cause a com-  
4           puter to define as a second tile an area of overlap between a set  
5           of at least two layers, the second tile comprising a second subset  
6           of the image pixels; and

7           computer-readable program code devices configured to cause a com-  
8           puter to repeat the initializing an accumulator color value, select-  
9           ing one of the layers, compositing, storing, repeating, and out-  
10          putting, for the second defined tile.

1           40. (Original) The computer program product of claim 29, wherein each layer  
2   comprises a window, and wherein the image comprises a display for a windowing  
3   system.

1           41. (Original) The computer program product of claim 29, wherein a first one  
2   of the layers in the set overlaps a second one of the layers in the set, and wherein  
3   each layer comprises bounds defined by edges, and wherein at least one edge of the  
4   first layer lies within the bounds of the second layer, and wherein the computer-  
5   readable program code devices configured to cause a computer to define as a tile an  
6   area of overlap comprises:

7 computer-readable program code devices configured to cause a com-  
8 puter to subdivide the second layer along a line corresponding  
9 to an extension of the at least one edge of the first layer that lies  
10 within the bounds of the second layer.

1 42. (Previously Presented) The computer program product of claim 29,

2 wherein:

3 the computer-readable program code devices configured to cause a  
4 computer to select one of the layers comprise computer-readable  
5 program code devices configured to cause a computer to select  
6 one of the layers in the set of at least two layers, the selected  
7 layer having a layer pixel corresponding to the image pixel, the  
8 layer pixel having a color value and an alpha value; and

9 the computer-readable program code devices configured to cause a  
10 computer to composite the color value of the layer pixel with the  
11 accumulator color value are configured to cause a computer to  
12 use at least one of the opacity value of the layer pixel, the fade  
13 value of the selected layer and the accumulator opacity value to  
14 composite the color value.

1 43. (Previously Presented) A system for combining at least two overlapping  
2 layers to render an image, the image containing a plurality of image pixels, each  
3 overlapping layer containing a plurality of layer pixels, each layer pixel correspond-  
4 ing to one of the image pixels, wherein each layer pixel has an opacity value and



5 wherein at least one of the overlapping layers has a fade value that specifies an over-  
6 all opacity of the at least one of the overlapping layers, the system comprising:

7 tile subdividing means, for defining a tile, the tile comprising a subset  
8 of the image pixels delimited according to an area of overlap  
9 among a set of at least two layers, so that a first portion of the  
10 image lies within the tile and a second portion of the image lies  
11 outside the tile;

12 accumulating means for initializing an accumulator color value and an  
13 accumulator opacity value for at least one image pixel in the de-  
14 fined tile;

15 layer selecting means, for successively selecting each of at least a subset  
16 of the layers in the set of at least two layers, each selected layer  
17 having a layer pixel corresponding to the image pixel, the layer  
18 pixel having a color value;

19 compositing means, coupled to the layer selecting means and to the ac-  
20 cumulating means, for, for each successively selected layer,  
21 compositing the color value of the layer pixel with the ac-  
22 cumulator color value, and compositing at least one of the opac-  
23 ity value of the layer pixel and the fade value of the selected  
24 layer with the accumulator opacity value, and storing the results  
25 in the accumulating means; and

26 output means, coupled to the accumulating means, for outputting the  
27 accumulator color value;

28 wherein in combining the overlapping layers, the accumulating means,  
29 the layer selecting means, and the compositing means process  
30 the first portion of the image distinctly from the second portion  
31 of the image;  
32 wherein, for each defined tile, the set of layers that overlap within the  
33 tile is homogenous throughout the entirety of the tile.

1 44. (Previously Presented) The system of claim 43, wherein the subset of  
2 overlapping layers selected by the layer selecting means is determined responsive to  
3 a comparison of the accumulator opacity value with a full opacity value.

1 45. (Original) The system of claim 43, wherein the layer selecting means suc-  
2 cessively selects layers by selecting a topmost remaining layer in the set of at least  
3 two layers.

1 46. (Previously Presented) The system of claim 43, wherein the output means  
2 outputs the accumulator color value to a frame buffer.

1 47. (Original) The system of claim 43, further comprising display means, cou-  
2 pled to the output means, for displaying the image.

1 48. (Original) The system of claim 43, wherein each of the layer selecting  
2 means, compositing means, accumulating means, and output means operates on  
3 each image pixel in the defined tile.

1           49. (Original) The system of claim 43, wherein each of the layer selecting  
2 means, compositing means, accumulating means, and output means operates on at  
3 least two image pixels concurrently.

1           50. (Previously Presented) The system of claim 43, wherein the accumulating  
2 means initializes a second accumulator color value for a second image pixel in the  
3 defined tile, and wherein:

4           the layer selecting means, concurrently with successively selecting each  
5           of at least a subset of the layers in the set of at least two layers  
6           having a layer pixel corresponding to the first image pixel, se-  
7           lects one of the layers in the set of at least two layers having a  
8           second layer pixel corresponding to the second image pixel, the  
9           second layer pixel having a color value;

10          the compositing means, concurrently with compositing the first color  
11          value of the layer pixel with the accumulator color value, com-  
12          posites the color value of the second layer pixel with the second  
13          accumulator color value and stores the result in the accumulat-  
14          ing means; and

15          the output means outputs the second accumulator color value.

1           51. (Original) The system of claim 43, wherein at least one of the layers in the  
2 set of at least two layers is non-rectangular.

1           52. (Original) The system of claim 43, wherein at least one pixel of at least one  
2 of the layers in the set of at least two layers is transparent, and wherein the composi-  
3 ting means:

4                   responsive to the layer pixel being transparent, retains the accumulator  
5                   color value; and

6                   responsive to the layer pixel not being transparent, composites the color  
7                   value of the layer pixel with the accumulator color value.

1           53. (Previously Presented) The system of claim 43, wherein:

2                   the tile subdividing means defines as a second tile a second area of  
3                   overlap between a second set of at least two layers, the tile com-  
4                   prising a second subset of the image pixels;

5                   the accumulating means initializes a second accumulator color value  
6                   for at least one image pixel in the second defined tile;

7                   the layer selecting means successively selects each of at least a subset of  
8                   the layers in the second set of at least two layers, each selected  
9                   layer having a layer pixel corresponding to the image pixel, the  
10                  layer pixel having a color value;

11                  the compositing means, for each successively selected layer, composites  
12                  the color value of the layer pixel with the second accumulator  
13                  color value and stores the result in the accumulating means; and  
14                  the output means outputs the second accumulator color value.

1           54. (Original) The system of claim 43, wherein each layer comprises a win-  
2           dow, and wherein the image comprises a display for a windowing system.

1           55. (Original) The system of claim 43, wherein a first one of the layers in the  
2           set overlaps a second one of the layers in the set, and wherein each layer comprises  
3           bounds defined by edges, and wherein at least one edge of the first layer lies within  
4           the bounds of the second layer, and wherein the tile subdividing means comprises:

5                       means for subdividing the second layer along a line corresponding to  
6                       an extension of the at least one edge of the first layer that lies  
7                       within the bounds of the second layer.

1           56. (Previously Presented) The system of claim 43, wherein the compositing  
2           means composites the color value of the layer pixel with the accumulator color value  
3           using at least one of the opacity value of the layer pixel, the fade value of the selected  
4           layer and the accumulator opacity value.

1           57. (Previously Presented) In an image containing a plurality of layers,  
2           wherein a first one of the layers overlaps a second one of the layers, and wherein  
3           each layer comprises bounds defined by edges, and wherein at least one edge of the  
4           first layer lies within the bounds of the second layer, a method of subdividing tiles,  
5           comprising:  
6                       subdividing the second layer along a straight line corresponding to an  
7                       extension of the at least one edge of the first layer that lies within

8 the bounds of the second layer, to obtain two tile subdivisions;  
9 and  
10 storing, in a tile list, a representation of at least a subset of the obtained  
11 tile subdivisions;  
12 wherein, for each tile, the set of layers that overlap within the tile is  
13 homogenous throughout the entirety of the tile and wherein at  
14 least one of the plurality of layers has a fade value that specifies  
15 an overall opacity of the at least one of the plurality of layers.

1 58. (Original) The method of claim 57, further comprising:  
2 repeating the subdividing step using at least one of the obtained tile  
3 subdivisions.

1 59. (Original) The method of claim 57, further comprising:  
2 joining at least two adjacent tile subdivisions in the tile list.

1 60. (Original) The method of claim 57, further comprising:  
2 responsive to at least two adjacent tile subdivisions including portions  
3 of the same set of identical layers as one another, joining the at  
4 least two adjacent tile subdivisions in the tile list.

1 61. (Previously Presented) In a device containing an image having a plurality  
2 of layers, wherein a first one of the layers overlaps a second one of the layers, and  
3 wherein each layer comprises bounds defined by edges, and wherein at least one

4 edge of the first layer lies within the bounds of the second layer, a system for subdividing tiles, comprising:

6 a tile subdivider, for subdividing the second layer along a straight line  
7 corresponding to an extension of the at least one edge of the first  
8 layer that lies within the bounds of the second layer, to obtain  
9 two tile subdivisions; and

10 a tile list, coupled to the tile subdivider, for storing a representation of  
11 at least a subset of the obtained tile subdivisions;

12 wherein, for each tile, the set of layers that overlap within the tile is  
13 homogenous throughout the entirety of the tile and wherein at  
14 least one of the plurality of layers has a fade value that specifies  
15 an overall opacity of the at least one of the plurality of layers.

1 62. (Original) The system of claim 61, wherein:

2 the tile subdivider repeats the subdividing using at least one of the ob-  
3 tained tile subdivisions.

1 63. (Original) The system of claim 61, further comprising:

2 a tile joiner, coupled to the tile list, for joining at least two adjacent tile  
3 subdivisions in the tile list.

1 64. (Original) The system of claim 61, further comprising:

2 a tile joiner, coupled to the tile list, for, responsive to at least two adja-  
3 cent tile subdivisions including portions of the same set of iden-

4 tical layers as one another, joining the at least two adjacent tile  
5 subdivisions in the tile list.

1 65. (Previously Presented) A computer program product comprising a com-  
2 puter-usable medium having computer-readable code embodied therein for subdi-  
3 viding tiles in an image containing a plurality of layers, wherein a first one of the  
4 layers overlaps a second one of the layers, and wherein each layer comprises bounds  
5 defined by edges, and wherein at least one edge of the first layer lies within the  
6 bounds of the second layer, comprising:

7 computer-readable program code devices configured to cause a com-  
8 puter to subdivide the second layer along a straight line corre-  
9 sponding to an extension of the at least one edge of the first layer  
10 that lies within the bounds of the second layer, to obtain two tile  
11 subdivisions; and

12 computer-readable program code devices configured to cause a com-  
13 puter to store, in a tile list, a representation of at least a subset of  
14 the obtained tile subdivisions;

15 wherein, for each tile, the set of layers that overlap within the tile is  
16 homogenous throughout the entirety of the tile and wherein at  
17 least one of the plurality of layers has a fade value that specifies  
18 an overall opacity of the at least one of the plurality of layers.

1 66. (Original) The computer program product of claim 65, further compris-  
2 ing:



3 computer-readable program code devices configured to cause a com-  
4 puter to repeat the subdividing using at least one of the obtained  
5 tile subdivisions.

1 67. (Original) The computer program product of claim 65, further compris-  
2 ing:

3 computer-readable program code devices configured to cause a com-  
4 puter to join at least two adjacent tile subdivisions in the tile list.

1 68. (Original) The computer program product of claim 65, further compris-  
2 ing:

3 computer-readable program code devices configured to cause a com-  
4 puter to, responsive to at least two adjacent tile subdivisions in-  
5 cluding portions of the same set of identical layers as one an-  
6 other, join the at least two adjacent tile subdivisions in the tile  
7 list.

1 69. (Previously Presented) In a device containing an image having a plurality  
2 of layers, wherein a first one of the layers overlaps a second one of the layers, and  
3 wherein each layer comprises bounds defined by edges, and wherein at least one  
4 edge of the first layer lies within the bounds of the second layer, a system for subdivi-  
5 ding tiles, comprising:

6 tile subdividing means, for subdividing the second layer along a  
7 straight line corresponding to an extension of the at least one

8 edge of the first layer that lies within the bounds of the second  
9 layer, to obtain two tile subdivisions; and  
10 tile list storage means, coupled to the tile subdividing means, for stor-  
11 ing a representation of at least a subset of the obtained tile sub-  
12 divisions;  
13 wherein, for each tile, the set of layers that overlap within the tile is  
14 homogenous throughout the entirety of the tile and wherein at  
15 least one of the plurality of layers has a fade value that specifies  
16 an overall opacity of the at least one of the plurality of layers.

1 70. (Original) The system of claim 69, wherein:  
2 the tile subdividing means repeats the subdividing using at least one of  
3 the obtained tile subdivisions.

1 71. (Original) The system of claim 69, further comprising:  
2 tile joining means, coupled to the tile list storage means, for joining at  
3 least two adjacent tile subdivisions in the tile list.

1 72. (Original) The system of claim 69, further comprising:  
2 tile joining means, coupled to the tile list storage means, for, responsive  
3 to at least two adjacent tile subdivisions including portions of  
4 the same set of identical layers as one another, joining the at least  
5 two adjacent tile subdivisions in the tile list.